FIG.1

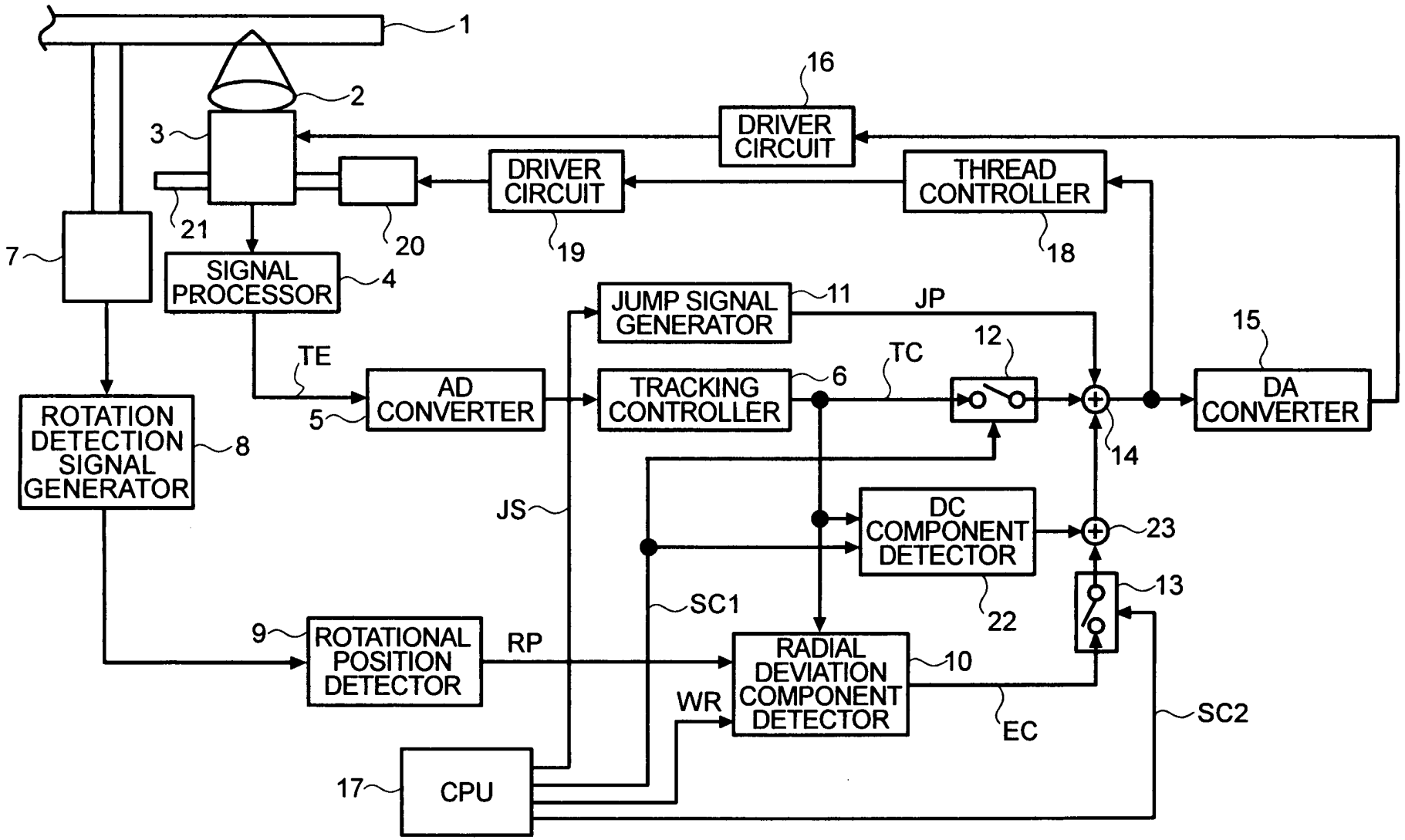
1
2
3
16
DRIVER CIRCUIT
DRIVER CIRCUIT
THREAD CONTROLLER
21
20
19
18
7
SIGNAL PROCESSOR
4
JUMP SIGNAL GENERATOR
11
JP
15
TE
TC
12
AD CONVERTER
TRACKING CONTROLLER
6
DA CONVERTER
5
ROTATION DETECTION SIGNAL GENERATOR
8
14
JS
DC COMPONENT DETECTOR
23
13
SC1
22
9
ROTATIONAL POSITION DETECTOR
RP
RADIAL DEVIATION COMPONENT DETECTOR
10
WR
EC
SC2
17
CPU

FIG.2

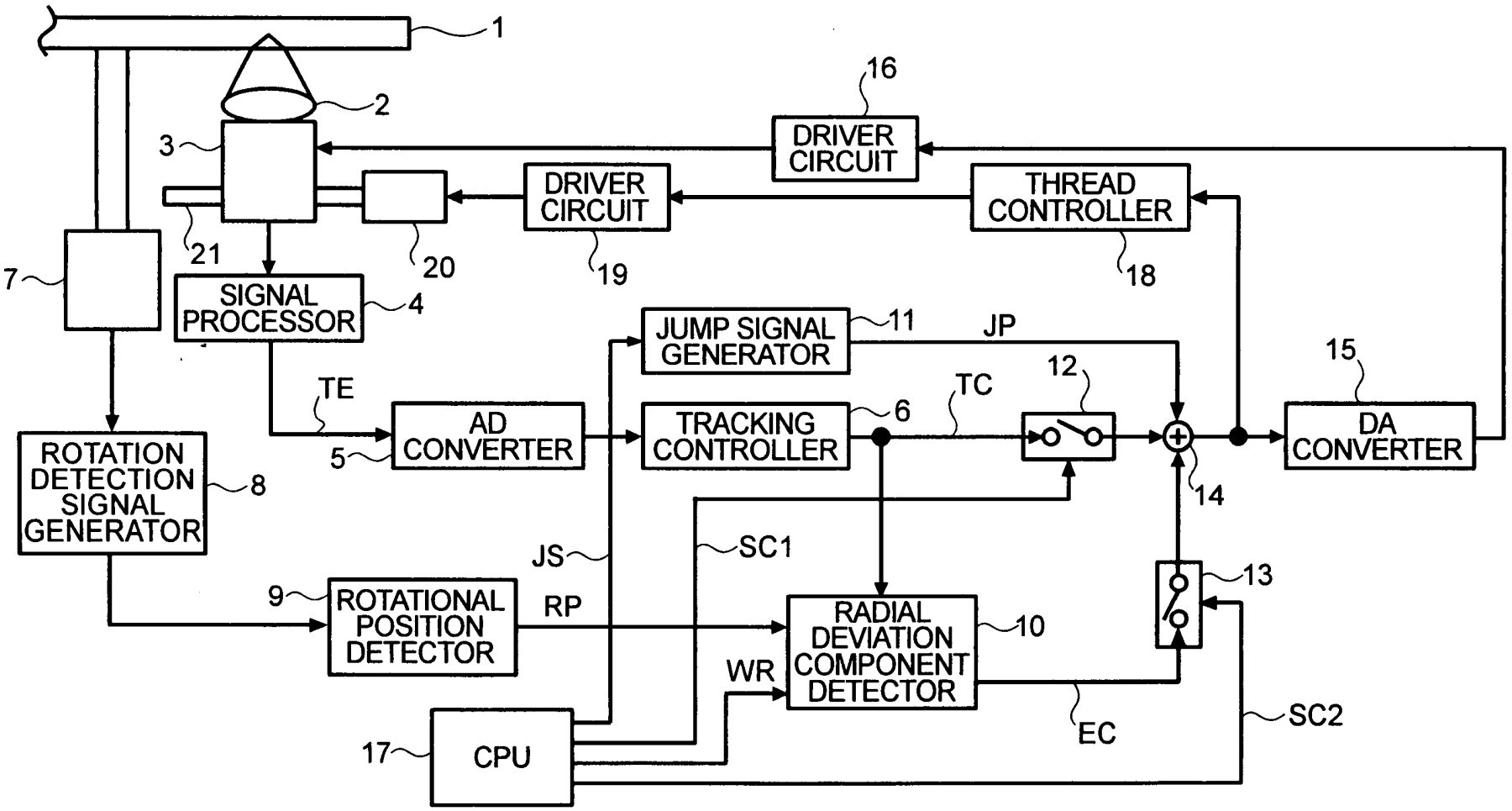
1
2
3
16
DRIVER CIRCUIT
DRIVER CIRCUIT
THREAD CONTROLLER
21
20
19
18
7
SIGNAL PROCESSOR
4
JUMP SIGNAL GENERATOR
11
JP
15
12
TE
TC
AD CONVERTER
TRACKING CONTROLLER
6
DA CONVERTER
5
ROTATION DETECTION SIGNAL GENERATOR
8
14
JS
SC1
13
9
ROTATIONAL POSITION DETECTOR
RP
RADIAL DEVIATION COMPONENT DETECTOR
10
WR
17
CPU
EC
SC2

FIG.3

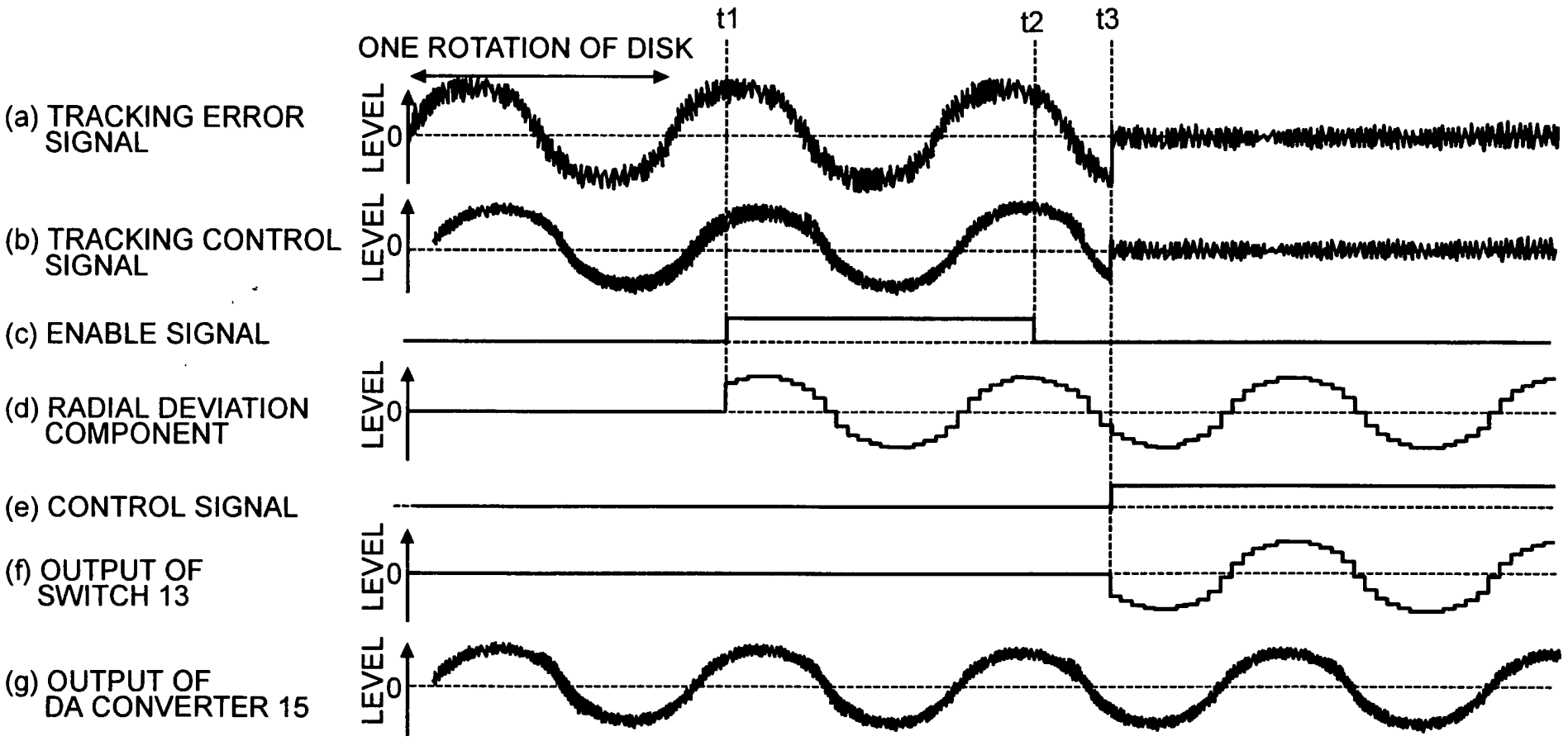
t1
t2
t3
ONE ROTATION OF DISK
(a) TRACKING ERROR SIGNAL
(b) TRACKING CONTROL SIGNAL
(c) ENABLE SIGNAL
(d) RADIAL DEVIATION COMPONENT
(e) CONTROL SIGNAL
(f) OUTPUT OF SWITCH 13
(g) OUTPUT OF DA CONVERTER 15
LEVEL
0

FIG.4

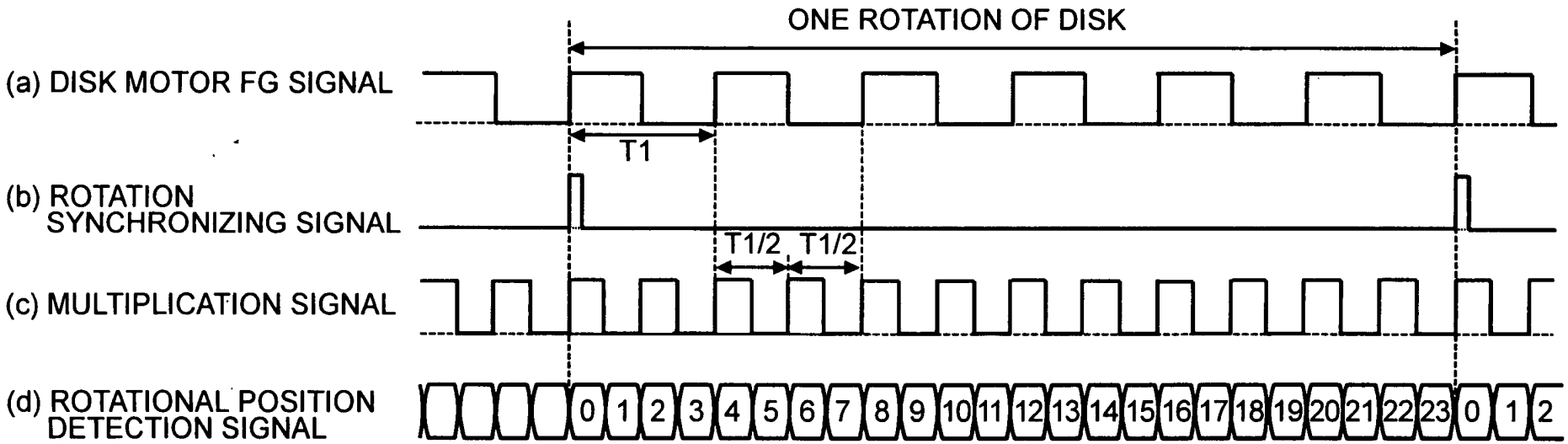
ONE ROTATION OF DISK
(a) DISK MOTOR FG SIGNAL
T1
(b) ROTATION SYNCHRONIZING SIGNAL
T1/2
T1/2
(c) MULTIPLICATION SIGNAL
(d) ROTATIONAL POSITION DETECTION SIGNAL
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0 1 2

FIG.5

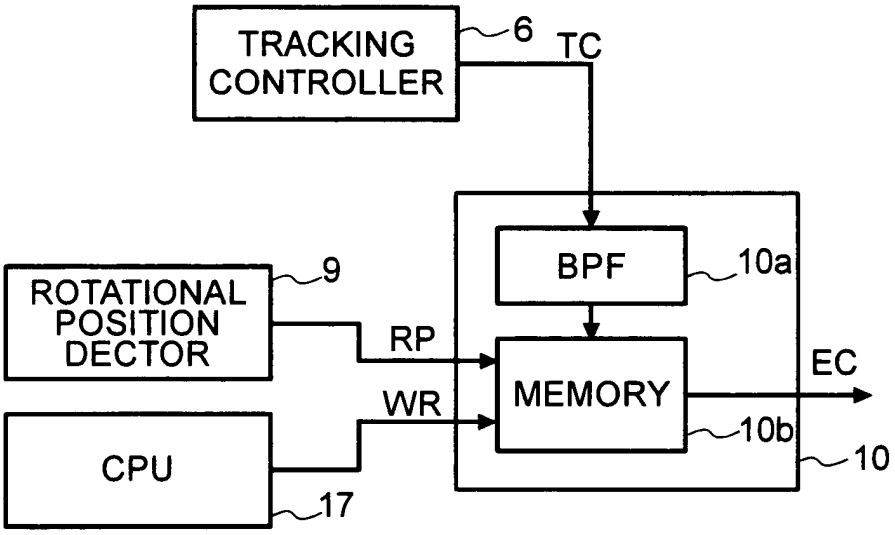
TRACKING CONTROLLER
6
TC
BPF
10a
ROTATIONAL POSITION DECTOR
9
RP
MEMORY
EC
WR
10b
CPU
17
10

FIG.6

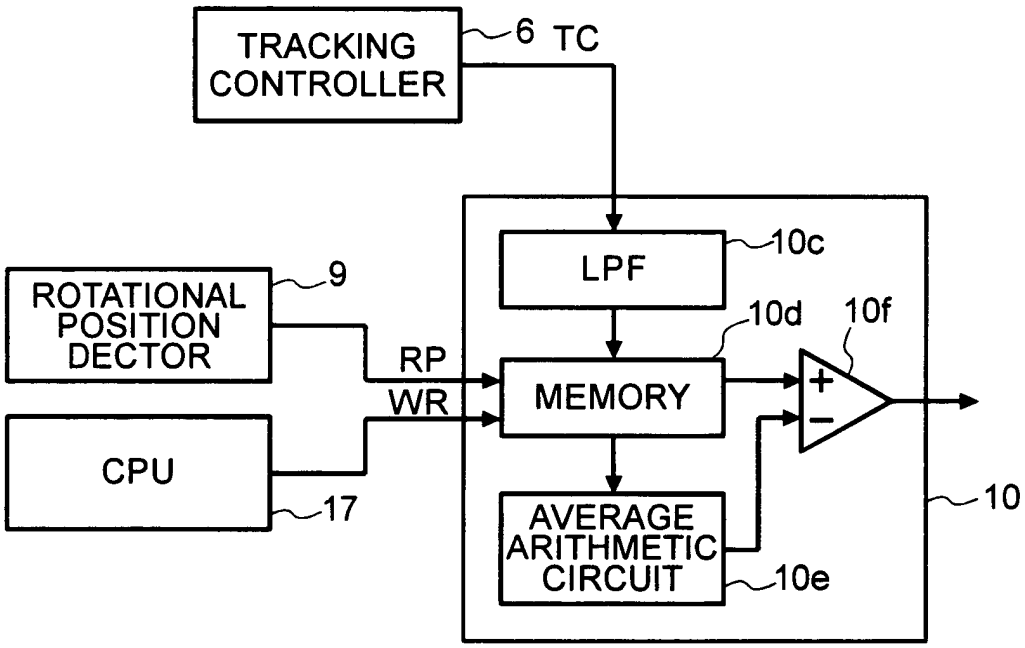
TRACKING CONTROLLER
6 TC
LPF
10c
ROTATIONAL POSITION DECTOR
9
10d
10f
RP
WR
MEMORY
CPU
17
AVERAGE ARITHMETIC CIRCUIT
10e
10
+
−

FIG.7

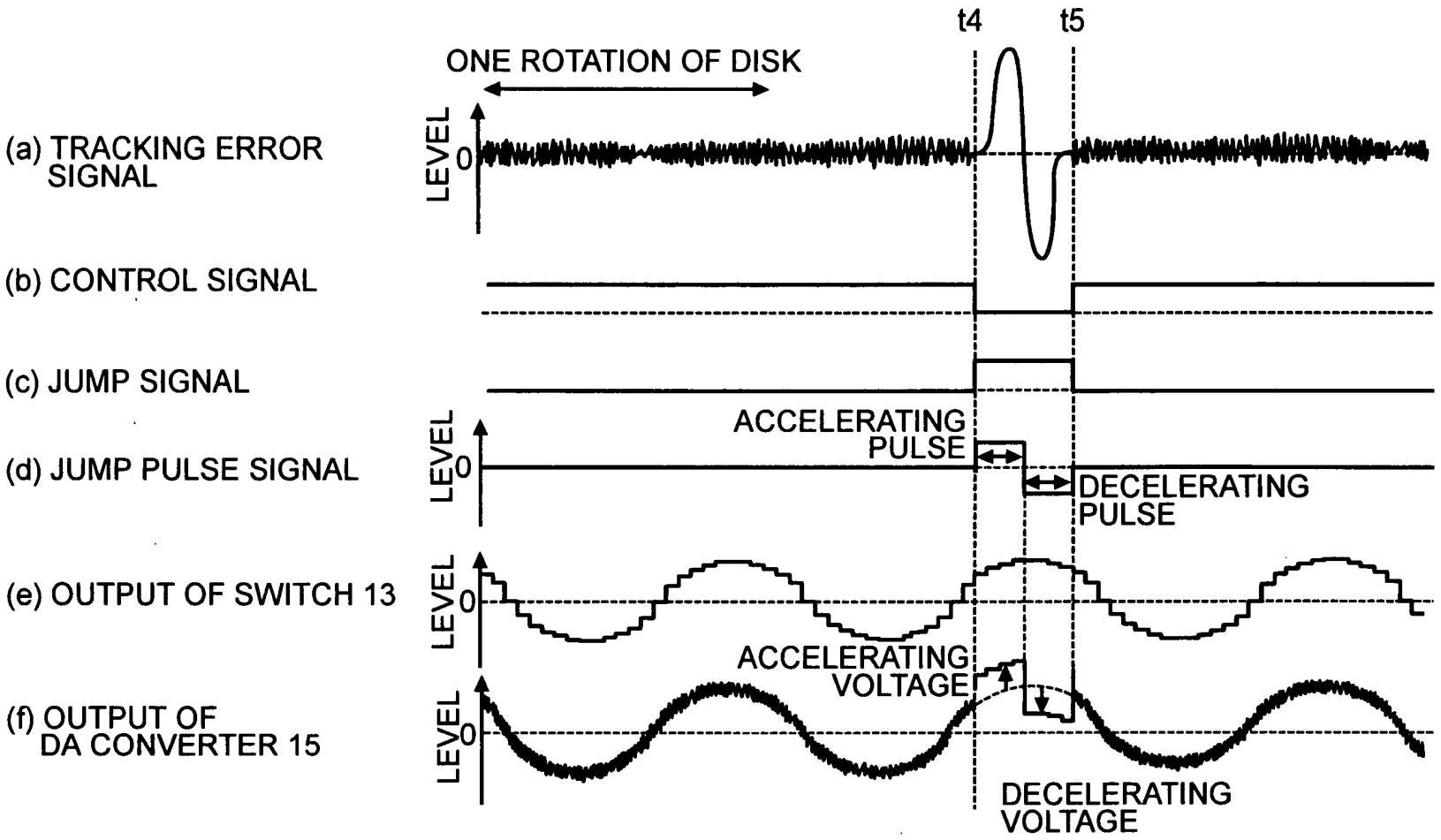
t4
t5
ONE ROTATION OF DISK
(a) TRACKING ERROR SIGNAL
LEVEL
0
(b) CONTROL SIGNAL
(c) JUMP SIGNAL
ACCELERATING PULSE
(d) JUMP PULSE SIGNAL
LEVEL
0
DECELERATING PULSE
(e) OUTPUT OF SWITCH 13
LEVEL
0
ACCELERATING VOLTAGE
(f) OUTPUT OF DA CONVERTER 15
LEVEL
0
DECELERATING VOLTAGE

FIG.8

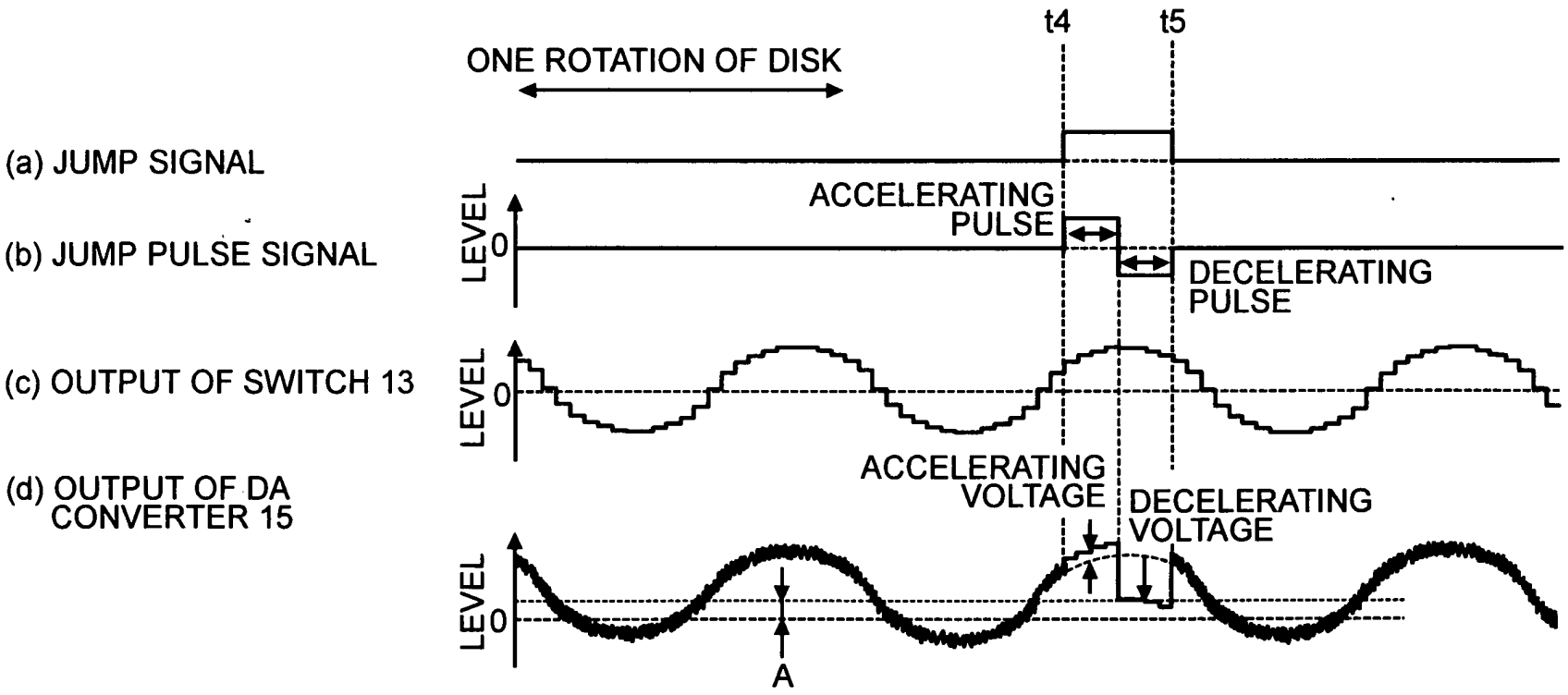
t4
t5
ONE ROTATION OF DISK
(a) JUMP SIGNAL
(b) JUMP PULSE SIGNAL
(c) OUTPUT OF SWITCH 13
(d) OUTPUT OF DA CONVERTER 15
LEVEL
0
ACCELERATING PULSE
DECELERATING PULSE
ACCELERATING VOLTAGE
DECELERATING VOLTAGE
A

FIG.9

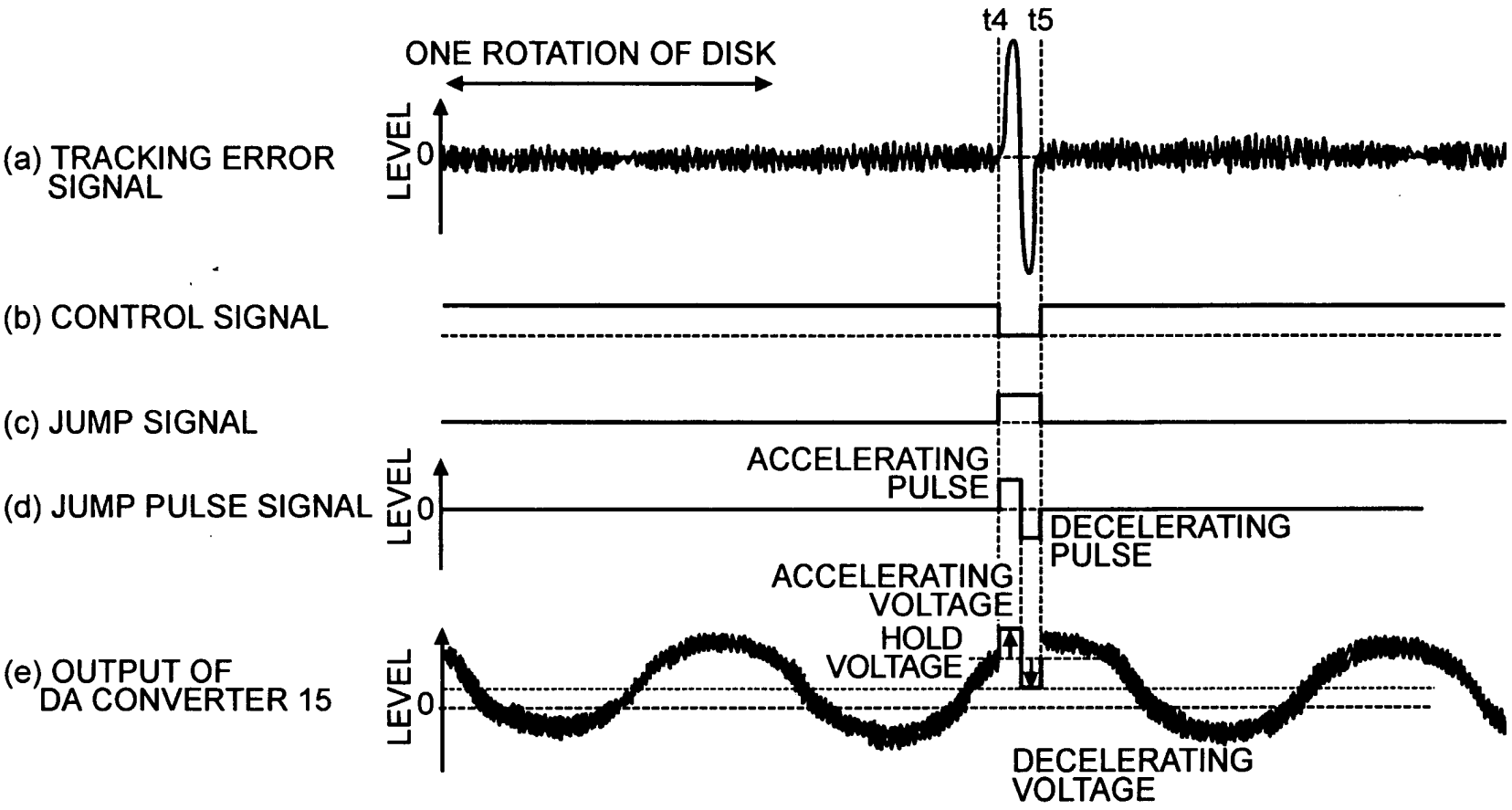
t4
t5
ONE ROTATION OF DISK
(a) TRACKING ERROR SIGNAL
LEVEL
0
(b) CONTROL SIGNAL
(c) JUMP SIGNAL
ACCELERATING PULSE
(d) JUMP PULSE SIGNAL
LEVEL
0
DECELERATING PULSE
ACCELERATING VOLTAGE
HOLD VOLTAGE
(e) OUTPUT OF DA CONVERTER 15
LEVEL
0
DECELERATING VOLTAGE

FIG.10

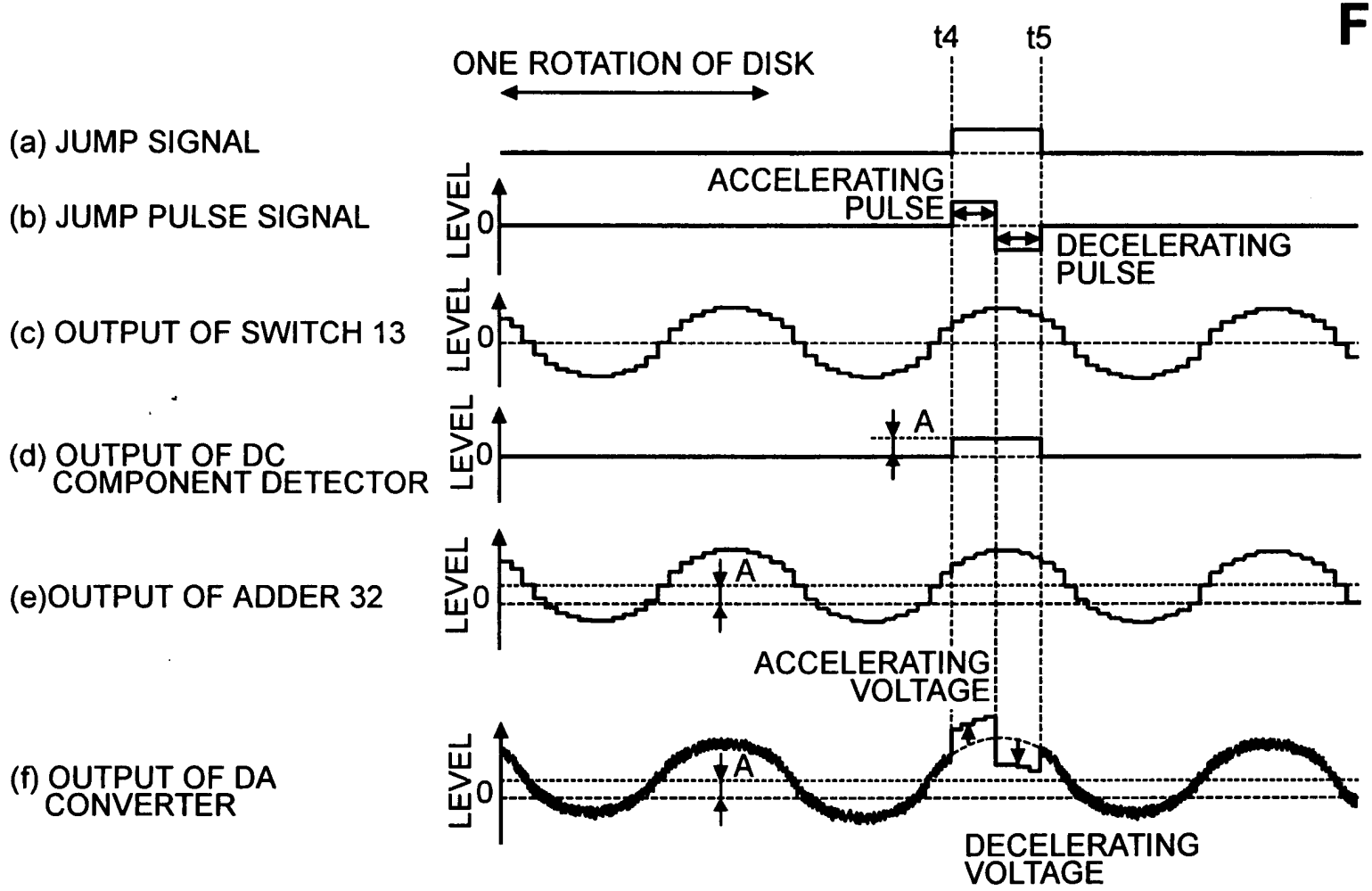
t4
t5
ONE ROTATION OF DISK
(a) JUMP SIGNAL
(b) JUMP PULSE SIGNAL
ACCELERATING PULSE
DECELERATING PULSE
(c) OUTPUT OF SWITCH 13
(d) OUTPUT OF DC COMPONENT DETECTOR
A
(e)OUTPUT OF ADDER 32
ACCELERATING VOLTAGE
(f) OUTPUT OF DA CONVERTER
DECELERATING VOLTAGE
LEVEL
0

FIG.11

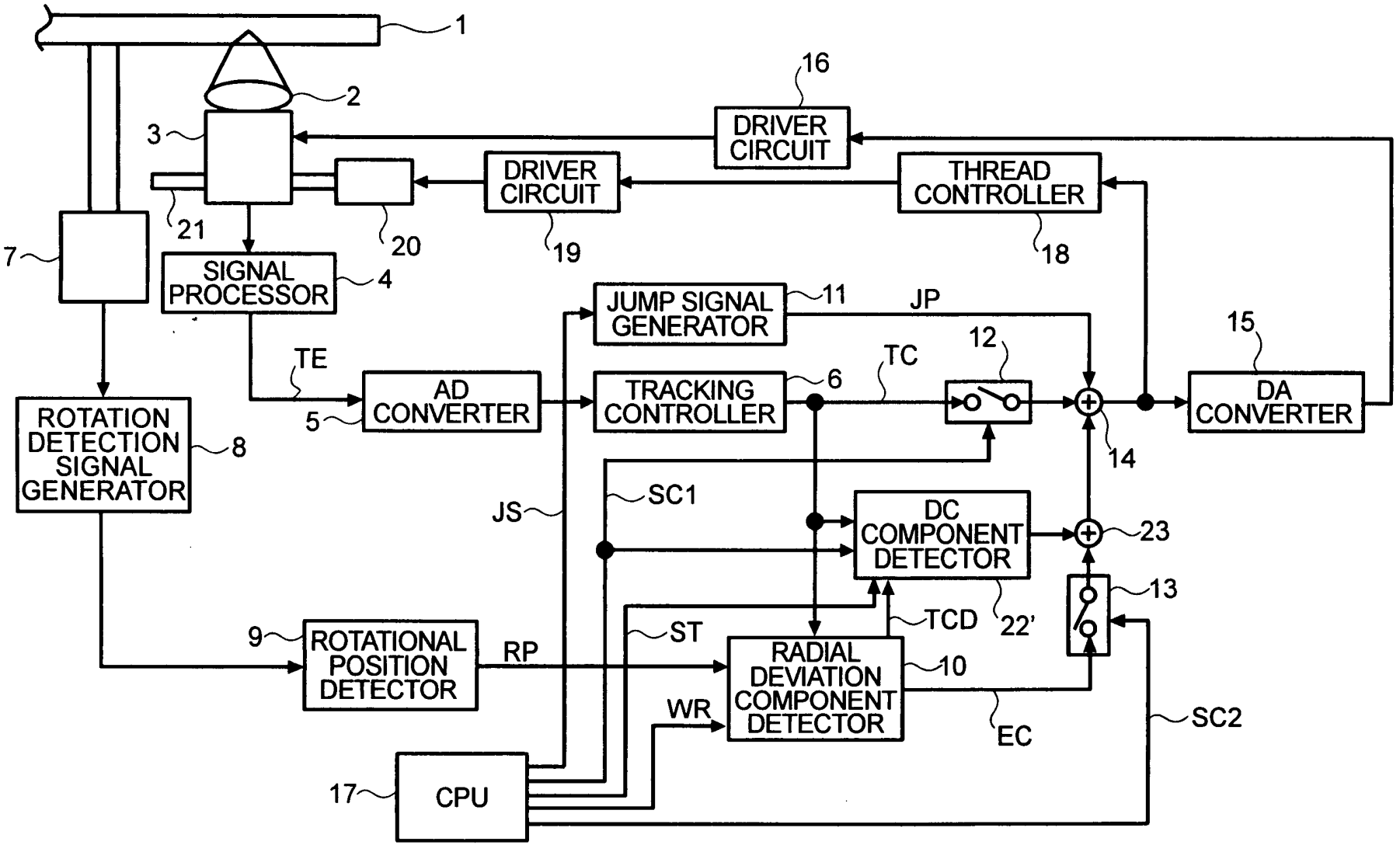
1
2
3
16
DRIVER CIRCUIT
DRIVER CIRCUIT
THREAD CONTROLLER
21
20
19
18
7
SIGNAL PROCESSOR
4
JUMP SIGNAL GENERATOR
11
JP
15
12
TE
TC
AD CONVERTER
TRACKING CONTROLLER
6
DA CONVERTER
5
ROTATION DETECTION SIGNAL GENERATOR
8
14
SC1
JS
DC COMPONENT DETECTOR
23
13
TCD
22'
9
ROTATIONAL POSITION DETECTOR
RP
ST
RADIAL DEVIATION COMPONENT DETECTOR
10
WR
EC
SC2
17
CPU

FIG.12

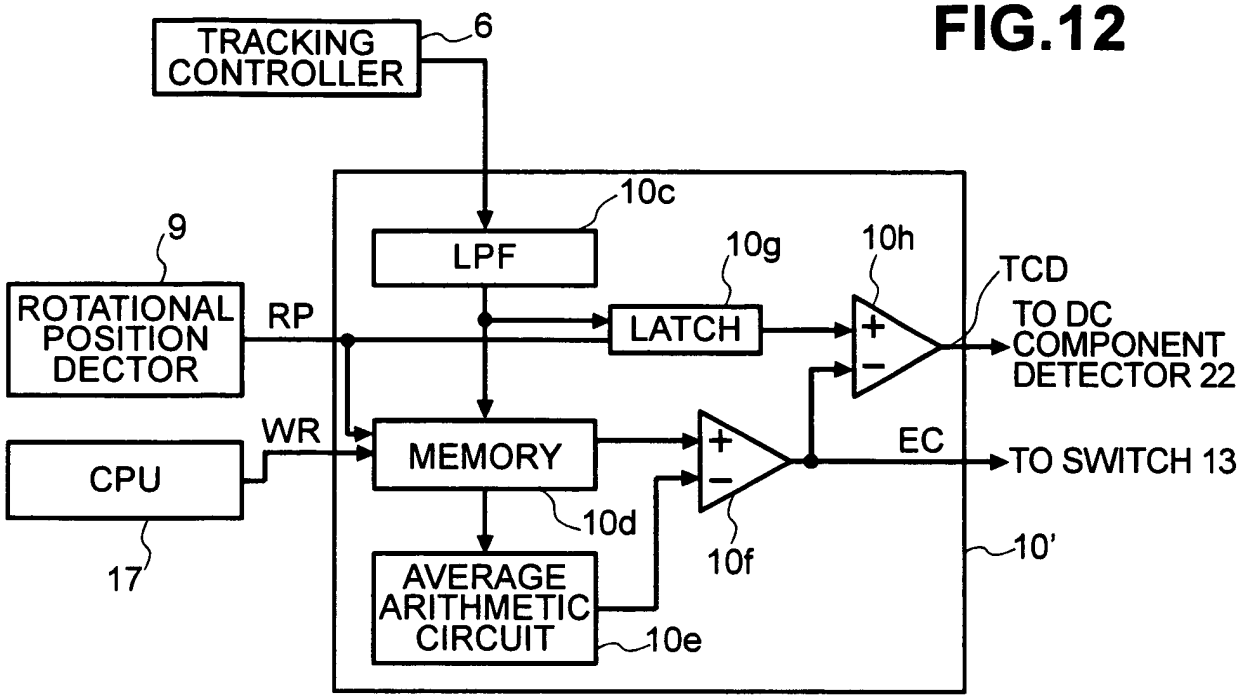

FIG.13

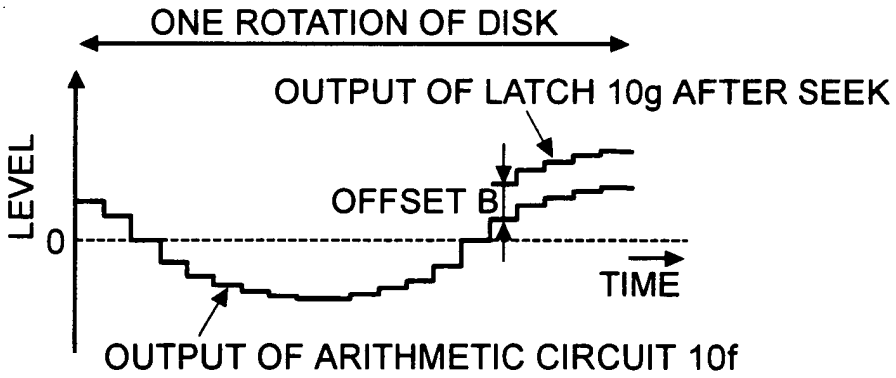
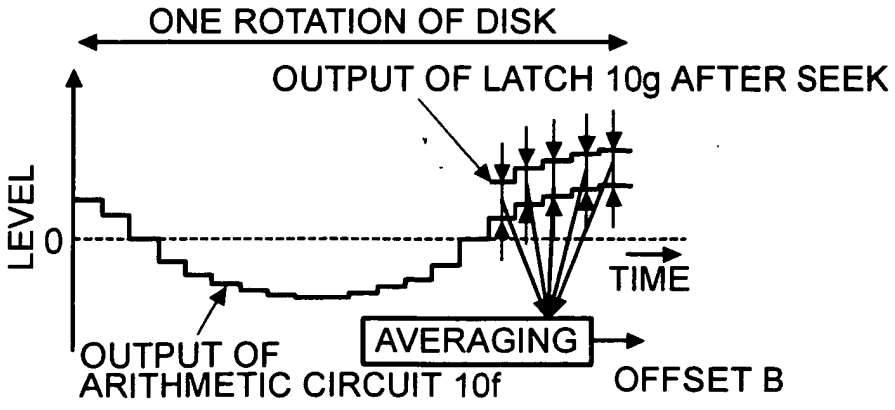
FIG.14